

Welcome to MSSA NewsWire Issue 7

This issues explores the use of Metal Spraying in regards to *Concrete Restoration* along with a ground-breaking advance from Metallisation.

CONCRETE RESTORATION - METAL SPRAY SOLUTIONS



Protecting Reinforced Concrete from Corrosion

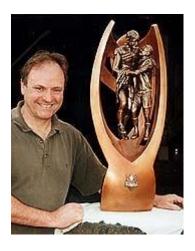
For many years industrial companies have fought to protect steel reinforced concrete from corrosion. The prime causes of corrosion in concrete include salt, chloride and de-icing treatments. The salt seeps into the concrete and erodes the steel reinforcing bar (re-bar) causing cracks and spalling in the concrete and eventually the potential for failure of the structure.

One very effective, long-term solution is metal/thermal spraying the concrete with zinc or a variety of zinc alloys. This is a technology that protects or extends the life of a wide variety of products in the most hostile environments.

Click Here for More Information

DID YOU KNOW?

The **NRL trophy** is Metal Sprayed with phosphor bronze! In 1999 sculptor Rodger Apte created this masterpiece.



For more details and to view some of Rodger's other masterpieces please follow this link.



Kermetico USA have shared this photo with us and to say we were surprised is an understatement.

A fatigue durability test was undertaken with a Flash Carbide HVAF coating approximately 22-28 microns. The rods were deflected 8 mm by a huge force and the test was repeated for so long that the engineer said he decided to discontinue the test because he was getting tired of walking upstairs to view the progress. They then decided to deflect beyond yield to see what happened.

After an ultrasonic inspection, no cracking delamination or blistering was found on any of the samples and we sprayed, including this one. And they sprayed something like twenty-five of them.

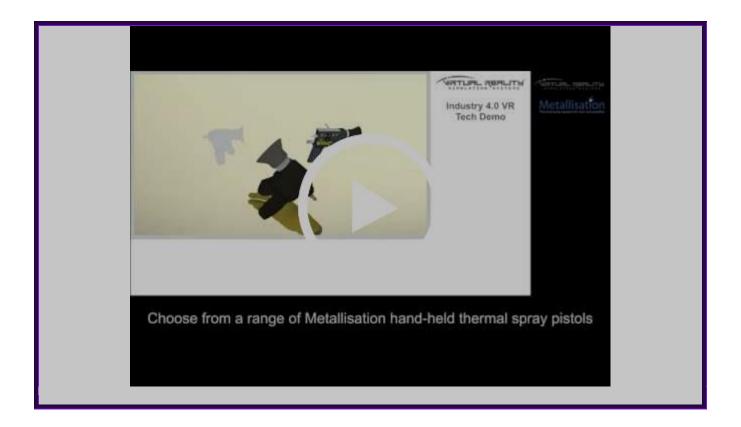
Have some interesting facts that you would like to share with others? Send your details to us at sales@metalspraysupplies.com

PRODUCT FOCUS - Virtual Reality Metal Spray

Metallisation always strive to be develop the metal spray industry by providing products and services to support.

Whilst Virtual Reality (VR) started as a primarily gaming platform, it is growing in use in industrial applications. There are already several welding companies offering VR welding training and at least one paint company offering paint sprayer training.

Metallisation with a VR company, have started to develop an introductory video (below) to show the basic principles of VR Metal Spraying training and what it could look like.



Some BENEFITS of the VR Training

- 1. Get multiple operators familiar with the pistol movements for quality spraying without the expense of wire usage, power usage and making physical demo pieces.
- 2. No preparation costs for blasting trial pieces just reset and start again.
- 3. Spray technique guidance for spray distance, speed etc. during training can be turned off to assess in a more realistic environment.
- 4. Gives feedback on how well the operator sprays and records their spray data and video of their practice and/or assessment.
- 5. Allows operators to practice multiple times with very low costs before honing their skills on actual test pieces or real-life job sites.
- 6. Practice in a safe environment with no noise, dust or other hazardous conditions.
- 7. Can be loaded with bespoke scenarios for operators to practice their spray skills, e.g. oil refinery, typical multi-node joints etc.
- 8. If significant interest is shown, they propose to incorporate the hand controllers into their arc and flame pistols with dummy supplies packs for a truly immersive experience.

The costs associated with preparation and live training often limits the amount of time that operators get before being let-loose on live jobs. The VR environment dramatically increases training time at basically the time cost of the operator with no running costs for the equipment, consumables, services etc.

Metallisation fully understand that this is not going to be a replacement for a final assessment on actual trial plates. However, they do believe that it will significantly assist in improving operator performance and reduce poor quality on live jobs. The welding industry is already seeing increased pass-rates for coded welders who have used VR as part of their training package.

MSSA have also appointed Ross Healey as Operations Co-Ordinator. Ross will be working in all aspects of the company with his specialty area being Digital Marketing.

MSSA recognises that the Metal Spray process has been around since the early 1900's, however not a lot of people are aware of its existence, for this reason Ross will be producing a series of videos to demonstrate the process, it's versatility and the various applications where it is used worldwide.

Want to Know More About the Different Types of Spraying?

Metal Spraying

Arc Spraying

Flame Spraying

Plasma Spraying

HVOF Spraying

HVAF Spraying

Masking

Feature Article in the Next Issue of NewsWire:

DECORATIVE COATINGS

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MSSA

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